

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-011209**Date Inspected:** 15-Jun-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Sun Bo**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Deck Panels**Summary of Items Observed:**

On this day Caltrans OSM Quality Assurance (QA) Inspector Stefan Holmes was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhen Hua Port Machinery Company (ZPMC) at Chang Xing Island in Shanghai, China.

QA Inspector performed Phased Array Ultrasonic Testing (PAUT) following the guide lines of UT procedure titled "Phased Array Ultrasonic Testing for the Detection and Sizing of Suspected Planar Discontinuities (Cracks) in PJP Welds, # UT 04-0120F4 PJP Rib Weld" after ZPMC welding personnel performed weld repairs of tacked areas of the Partial Joint Penetration (PJP) welds joining u-ribs to deck plate. The deck panels examined are as follows:

DP344-002: 19 tack weld locations found compliant and 0 tack weld locations found non-compliant.

QA Inspector performed initial Phased Array Ultrasonic Testing (PAUT) following the guide lines of UT procedure titled "Phased Array Ultrasonic Testing for the Detection and Sizing of Suspected Planar Discontinuities (Cracks) in PJP Welds, # UT 04-0120F4 PJP Rib Weld" after conventional UT was performed on tack welded areas of the Partial Joint Penetration (PJP) welds joining u-ribs to deck plate. The deck panels examined are as follows:

DP155-001: 13 tack weld location found compliant and 14 tack weld locations found non-compliant.

DP128-002: 25 tack weld locations found compliant and 6 tack weld locations found non-compliant.

DP371-001: 22 tack weld locations found compliant and 7 tack weld locations found non-compliant.

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DP101-001: 6 tack weld locations found compliant and 13 tack weld locations found non-compliant.

Tack weld locations found non-compliant are marked on U-rib and deck plate for ZPMC's reference for repair. See Caltrans U-rib to Deck Panel- Tack Weld Assessment sheets for further information on PAUT inspections.

QA Inspector performed Final Visual Inspection following the guide lines of AWS-D1.5 on Deck Panel assemblies including Partial Penetration (PJP) welds joining U-ribs to deck plate. The deck panels examined are as follows:

DP288-001: Final VT appears to comply with code and contract requirements.

DP448-001: Final VT appears to comply with code and contract requirements.

QA Inspector performed QA Verification Magnetic Particle Testing (MT) on U-rib deck panel assemblies following the guidelines of Caltrans MT Procedure CTMT-08-00 Rev. 2.1. Deck Panels Inspected and results are as follows:

DP288-001: 15% MT-Tested.

DP448-001: 15% MT-Tested.

QA Inspector performed Green Tagging activities following the green tagging procedure. The deck panels green tagged are as follows:

DP288-001: Green Tag Number 7836

DP448-001: Green Tag Number 7835

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

### Summary of Conversations:

No relevant conversations.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact , who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Holmes,Stefan	Quality Assurance Inspector
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<b>Reviewed By:</b>	Hall,Steven	QA Reviewer
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